

Active Recombinant Full Length Human AKT2 Protein, C-Flag-tagged

Cat. No. AKT2-260HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human AKT2 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	This gene is a putative oncogene encoding a protein belonging to a subfamily of serine/threonine kinases containing SH2-like (Src homology 2-like) domains, which is involved in signaling pathways. The gene serves as an oncogene in the tumorigenesis of cancer cells. For example, its overexpression contributes to the malignant phenotype of a subset of human ductal pancreatic cancers. The encoded protein is a general protein kinase capable of phosphorylating several known proteins, and has also been implicated in insulin signaling.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Bio-activity	AKT2 activity verified in a biochemical assay: AKT2 (v-akt murine thymoma viral oncogene homolog 2) activity was measured in a homogeneous time-resolved fluorescent (HTRF®) assay. AKT2 is a serine/threonine kinase that plays a key in regulating cell survival, insulin signaling, angiogenesis and tumor formation. Varying concentrations of AKT2 were added to a reaction mix containing ATP and a biotinylated kinase substrate and the reaction mixture was incubated to allow the

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protein to phosphorylate the substrate. HTRF detection reagents were then added, and the time-resolved fluorescent signal was measured on a Flexstation 3 microplate reader. The time resolved fluorescent signal is expressed as “delta R” or “ΔR” and is a ratio calculated from the fluorescent emission intensities of the donor and acceptor fluors.

Molecular Mass	55.6 kDa
AA Sequence	MNEVSVIKEGWLHKRGEYIKTWRPRYFLLKSDGSFIGYKERPEAPDQTLPLNNSV AECQLMKTERPRP NTFVIRCLQWTTVIERTFHVDSPDEREEWMRAIQMVANSLKQR APGEDPMDYKCGSPSDSSTTEEMEVAV SKARAKVTMNDFDYLLKLGKGTGFRVILV REKATGRYYAMKILRKEVIIAKDEVAHTVTESRVLQNTRHP FLTALKYAFQTHDRLCF VMEYANGGELFFHLSRERVFTTEERARFYGAEIVSALEYLHSRDVVYRDIKLEN LMLD KDGHIKITDFGLCKEGISDGATMKTFCGTPEYLAPEVLEDNDYGRAVDWWGLGVVM YEMMCGRLPF YNQDHERLFELILMEEIRFPRTLSPKAKSLLAGLLKKDPKQRLGGGP SDAKEVMEHRFFLSINWQDVVQK KLLPPFKPQVTSEVDTRYFDDEFTAQSITITPPDRYDSLGLLELDQRTHTFPQFSYSASI RETRTRPLEQKLISEEDLAANDILDYKDDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.

Protein Families	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase
Protein Pathways	Acute myeloid leukemia, Adipocytokine signaling pathway, Apoptosis, B cell receptor signaling pathway, Chemokine signaling pathway, Chronic myeloid leukemia, Colorectal cancer, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, Glioma, Insulin signaling pathway, Jak-STAT signaling pathway, MAPK signaling pathway, Melanoma, mTOR signaling pathway, Neurotrophin signaling pathway, Non-small cell lung cancer, Pancreatic cancer, Pathways in cancer, Progesterone-mediated oocyte maturation, Prostate cancer, Renal cell carcinoma, Small cell lung cancer, T cell receptor signaling pathway, Tight junction, Toll-like receptor signaling pathway, VEGF signaling pathway
Full Length	Full L.
GENE INFORMATION	
Gene Name	AKT2 AKT serine/threonine kinase 2 [Homo sapiens (human)]
Official Symbol	AKT2
Synonyms	PKBB; PRKBB; HIHGHH; PKBBETA; RAC-BETA
Gene ID	208
mRNA Refseq	NM_001626.6
Protein Refseq	NP_001617.1
MIM	164731

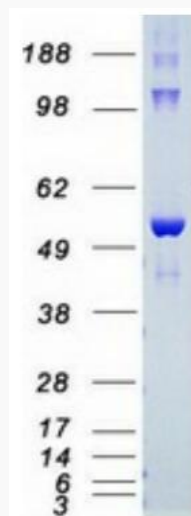
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UniProt ID

P31751



Coomassie blue staining of purified AKT2 protein.

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